

SEQUENCE LISTING

<110> Sun, Tian-Qiang
 Feng, Jia-Jia
 Reinhard, Christoph
 Fantl, Wendy J.
 Williams, Lewis T.

<120> ISOLATION OF DROSOPHILA AND HUMAN POLYNUCLEOTIDES ENCODING PAR-1
 KINASE, POLYPEPTIDES ENCODED BY THE POLYNUCLEOTIDES AND METHODS
 UTILIZING THE POLYNUCLEOTIDES AND POLYPEPTIDES

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Cys Gly Ser Pro Pro Tyr Ala Ala Pro Glu Leu Phe Gln Gly Lys Lys		175
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<213> Homo sapiens

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<210> 12

<211> 795

<212> PRT

<213> Homo sapiens

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Lys	Lys	Leu	Leu	Val	Leu	Asn	Pro	Ile	Lys	Arg	Gly	Ser	Leu	Glu	Gln	
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Ile	Met	Lys	Asp	Arg	Trp	Met	Asn	Val	Gly	His	Glu	Glu	Glu	Glu	Leu	
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Lys	Pro	Tyr	Thr	Glu	Pro	Asp	Pro	Asp	Phe	Asn	Asp	Thr	Lys	Arg	Ile	
				325					330					335		
Asp	Ile	Met	Val	Thr	Met	Gly	Phe	Ala	Arg	Asp	Glu	Ile	Asn	Asp	Ala	
			340					345					350			
Leu	Ile	Asn	Gln	Lys	Tyr	Asp	Glu	Val	Met	Ala	Thr	Tyr	Ile	Leu	Leu	
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Gly	Arg	Lys	Pro	Pro	Glu	Phe	Glu	Gly	Gly	Glu	Ser	Leu	Ser	Ser	Gly	
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Asn	Leu	Cys	Gln	Arg	Ser	Arg	Pro	Ser	Ser	Asp	Leu	Asn	Asn	Ser	Thr	
385					390					395						

465 470 475 480
 Glu Arg Lys Lys Ser Ser Thr Ile Pro Ser Asn Asn Val Tyr Ser Gly
 485 490 495
 Gly Ser Met Ala Arg Arg Asn Thr Tyr Val Cys Glu Arg Thr Thr Asp
 500 505 510
 Arg Tyr Val Ala Leu Gln Asn Gly Lys Asp Ser Ser Leu Thr Glu Met
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 Ser Val Ser Ser Ile Ser Ser Ala Gly Ser Ser Val Ala Ser Ala Val
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 Pro Ser Ala Arg Pro Arg His Gln Lys Ser Met Ser Thr Ser Gly His
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 Pro Ile Lys Val Thr Leu Pro Thr Ile Lys Asp Gly Ser Glu Ala Tyr
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 Arg Pro Gly Thr Thr Gln Arg Val Pro Ala Ala Ser Pro Ser Ala His
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 Ser Ile Ser Thr Ala Thr Pro Asp Arg Thr Arg Phe Pro Arg Gly Ser
 595 600 605
 Ser Ser Arg Ser Thr Phe His Gly Glu Gln Leu Arg Glu Arg Arg Ser
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 Arg Phe Leu Leu Phe Cys Val His Gly Asp Ala Arg Gln Asp Ser Leu
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 Val Gln Trp Glu Met Glu Val Cys Lys Leu Pro Arg Leu Ser Leu Asn
 755 760 765
 Gly Val Arg Phe Lys Arg Ile Ser Gly Thr Ser Ile Ala Phe Lys Asn
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<211> 25

<212> DNA

<213> Artificial Sequence

<220>

<223> Antisense oligonucleotide

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25

<210> 14

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<210> 19
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 <212> DNA
 <213> *Drosophila* sp.

<400> 19

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gacagcaatg cgcaccacac tgcagtcagt tcctgaggcc ctgccagcgg atagcgtgtc 300
caatggcaca gcatccaatg tagcagcacc ggcgcgcca gtatcgagcg caacaaacgc 360
ggtgccacca ctggccgccc tctccagcac aaccgccacc tacgccacca actcgatcag 420
cacatctctg cattcggtca aggatcagca gcagcaacag cagcagcagc agcatgattc 480
ggccaatgca aacatttgtt cactgccacc aacgacaacg ccagtcgcca aactaataac 540
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gaccgtttcg gcgtcagcgg ccaacaccaa tcactcgcac cagcacagcc accaacacca 720
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<210> 20

<211> 3154

<212> DNA

<213> *Drosophila* sp.

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<210> 21

<211> 832

<212> PRT

<213> Drosophila sp.

<400> 21

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Ala Ala Pro Val Ser Ser Ala Thr Asn Ala Val Pro Pro Leu Ala Ala
 35          40          45
Val Ser Ser Thr Thr Ala Thr Tyr Ala Thr Asn Ser Ile Ser Thr Ser
 50          55          60
Ser His Ser Val Lys Asp Gln Gln Gln Gln Gln Gln Gln Gln His
 65          70          75          80
Asp Ser Ala Asn Ala Asn Ile Val Ser Leu Pro Pro Thr Thr Thr Pro
 85          90          95
Val Ala Asn Thr Asn Thr Met Met Pro Ile Val Thr Ser Ser Asn Ser
100          105          110
Ala Thr Ser Asn Ser Thr Ala Ala Thr Pro Thr Pro Ala Ser Gly Ala
115          120          125
Ala Ala Thr Gly Gly Val Gly Ser Val Ser Gln Gly Pro Ala Thr Val
130          135          140
Ser Ala Ser Ala Ala Asn Thr Asn His Ser His Gln His Ser His Gln
145          150          155          160
His His His His Val Ala Asn Asn Met Thr Thr Asp Gly Ala Arg Leu
165          170          175
Ser Ser Asn Asn Ser Ala Val Val Ala Ser Ser Ala Ile Asn His His
180          185          190
His His His Thr Pro Gly Ser Gly Val Ala Pro Thr Val Asn Lys Asn
195          200          205
Val Leu Ser Thr His Ser Ala His Pro Ser Ala Ile Lys Gln Arg Thr
210          215          220
Ser Ser Ala Lys Gly Ser Pro Asn Met Gln Met Arg Ser Ser Ala Pro
225          230          235          240
Met Arg Trp Arg Ala Thr Glu Glu His Ile Gly Lys Tyr Lys Leu Ile
245          250          255
Lys Thr Ile Gly Lys Gly Asn Phe Ala Lys Val Lys Leu Ala Lys His
260          265          270
Leu Pro Thr Gly Lys Glu Val Ala Ile Lys Ile Ile Asp Lys Thr Gln
275          280          285

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Leu Asn Pro Gly Ser Leu Gln Lys Leu Phe Arg Glu Val Arg Ile Met
 290 295 300
 Lys Met Leu Asp His Pro Asn Ile Val Lys Leu Phe Gln Val Ile Glu
 305 310 315 320
 Thr Glu Lys Thr Leu Tyr Leu Ile Met Glu Tyr Ala Ser Gly Gly Glu
 325 330 335
 Val Phe Asp Tyr Leu Val Leu His Gly Arg Met Lys Glu Lys Glu Ala
 340 345 350
 Arg Val Lys Phe Arg Gln Ile Val Ser Ala Val Gln Tyr Cys His Gln
 355 360 365
 Lys Arg Ile Ile His Arg Asp Leu Lys Ala Glu Asn Leu Leu Leu Asp
 370 375 380
 Ser Glu Leu Asn Ile Lys Ile Ala Asp Phe Gly Phe Ser Asn Glu Phe
 385 390 395 400
 Thr Pro Gly Ser Lys Leu Asp Thr Phe Cys Gly Ser Pro Pro Tyr Ala
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 Ala Pro Glu Leu Phe Gln Gly Lys Lys Tyr Asp Gly Pro Glu Val Asp
 420 425 430
 Val Trp Ser Leu Gly Val Ile Leu Tyr Thr Leu Val Ser Gly Ser Leu
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 Pro Phe Asp Gly Ser Thr Leu Arg Glu Leu Arg Glu Arg Val Leu Arg
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 Gly Lys Tyr Arg Ile Pro Phe Tyr Met Ser Thr Asp Cys Glu Asn Leu
 465 470 475 480
 Leu Arg Lys Phe Leu Val Leu Asn Pro Ala Lys Arg Ala Ser Leu Glu
 485 490 495
 Thr Ile Met Gly Asp Lys Trp Met Asn Met Gly Phe Glu Glu Asp Glu
 500 505 510
 Leu Lys Pro Tyr Ile Glu Pro Lys Ala Asp Leu Ala Asp Pro Lys Arg
 515 520 525
 Ile Glu Ala Leu Val Ala Met Gly Tyr Asn Arg Ser Glu Ile Glu Ala
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 Ser Leu Ser Gln Val Arg Tyr Asp Asp Val Phe Ala Thr Tyr Leu Leu
 545 550 555 560
 Leu Gly Arg Lys Ser Thr Asp Pro Glu Ser Asp Gly Ser Arg Ser Gly
 565 570 575
 Ser Ser Leu Ser Leu Arg Asn Ile Ser Gly Asn Asp Ala Gly Ala Asn
 580 585 590
 Ala Gly Ser Ala Ser Val Gln Ser Pro Thr His Arg Gly Val His Arg
 595 600 605
 Ser Ile Ser Ala Ser Ser Thr Lys Pro Ser Arg Arg Ala Ser Ser Gly
 610 615 620
 Ala Glu Thr Leu Arg Val Gly Pro Thr Asn Ala Ala Thr Val Ala
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 Ala Ala Thr Gly Ala Val Gly Ala Val Asn Pro Ser Asn Asn Tyr Asn
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 Arg Gln Asn Thr Ile Asp Ser Ala Thr Ile Lys Glu Asn Thr Ala Arg
 675 680 685
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 690 695 700
 Thr Thr Ala Asp Thr Thr Leu Asn Ser Pro Ala Lys Pro Arg Thr Ala
 705 710 715 720

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Thr Lys Tyr Asp Pro Thr Asn Gly Asn Arg Thr Val Ser Gly Thr Ser
      725                      730                      735
Gly Ile Ile Pro Arg Arg Ser Thr Thr Leu Tyr Glu Lys Thr Ser Ser
      740                      745                      750
Thr Glu Lys Thr Asn Val Ile Pro Ala Glu Thr Lys Met Ala Ser Ala
      755                      760                      765
Val Lys Ser Ser Arg His Phe Pro Arg Asn Val Pro Ser Arg Ser Thr
      770                      775                      780
Phe His Ser Gly Gln Thr Arg Ala Arg Asn Asn Thr Ala Leu Glu Tyr
      785                      790                      795                      800
Ser Gly Thr Ser Gly Ala Ser Gly Asp Ser Ser His Pro Gly Arg Met
      805                      810                      815
Ser Phe Phe Ser Lys Leu Ser Ser Arg Phe Ser Lys Arg Pro Asn Gln
      820                      825                      830

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<210> 22

<211> 36

<212> PRT

<213> Homo sapiens

<400> 22

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Gln Arg Leu Gln Val Arg Lys Lys Pro Gln Arg Arg Lys Lys Arg Ala
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Pro Ser Met Ser Arg Thr Ser Ser Tyr Ser Ser Ile Thr Asp Ser Thr
      20                      25                      30
Met Ser Leu Asn
      35

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